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ABSTRACT

This paper describes several electronic mail systems in use in Alaska. The University of Alaska Computer Network has had an electronic mail system since 1976 that connects its campuses throughout the state. The Department of Education also has had a mail system since the late 1970s that links the 53 school districts as well as the support and administrative offices in the department. Within the Legislative Affairs computer network, a system is being used with many advanced capabilities which the Legislative Information Offices also use. In order to improve communication between state agencies, the Department of Administration has introduced a new shared electronic mail system on its System Network Architecture (SNA) network, which is accessible to all state agencies. Following descriptions of each of the aforementioned systems, several recommendations are presented: while a number of good in-house electronic mail systems exist within state government, communications between departments should be improved with support of the electronic mail system on the state SNA network; there are a number of products available on today's software market and care should be taken when choosing an electronic mail system; and compatibility with existing systems should be examined as well as service arrangements. (Author/THC)

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ELECTRONIC MAIL SYSTEMS

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ELECTRONIC MAIL SYSTEMS

A Brief Description

One In A Series Of Papers
On Alaskan Telecommunications

By

The Rural Research Agency
Jennifer Klein
August, 1984

Alaska State Senate
Community and Regional Affairs Committee

Executive Summary

Electronic Mail Systems are a telecommunication tool with many software packages of varying degrees of sophistication. Most large computer networks today have an electronic mail system to enhance communication among their users. The University of Alaska Computer Network has had a electronic mail system since 1976 that connects its campuses throughout the state. The Department of Education also has had a mail system since the late 70's that links the fifty-three school districts as well the support and administrative offices in the department. Within the Legislative Affairs computer network a system is being used with many advanced capabilities which the Legislative Information Offices use a great deal. In order to improve communication between state agencies, the Department of Administration has introduced a new electronic mail system on the SNA network. Because the SNA is accessible to all state agencies, it provides a perfect medium for a shared electronic mail system.

Recommendations:

* There are a number of good in-house electronic mail systems within state government, however communication between departments should be improved with support of the electronic mail system on the state SNA network.

* There are a number of products available on today's software market. Care should be taken when choosing an electronic mail system. Compatibility with existing systems as well as service arrangements should be examined.

INTRODUCTION

This description of Electronic Mail Systems is another paper in the series of telecommunication reports produced by the Rural Research Agency. Electronic Mail Systems are a telecommunication tool with many software packages of varying degrees of sophistication. They can be found on most large computer networks with emphasis oriented towards person-to-person communication and/or message broadcasting. Electronic mail has become so accepted and popular that it is often the first experience many people have with computer-based communication. Although the numerous systems differ as far as capabilities, they all operate similarly.

The University of Alaska and three state agencies that currently offer electronic mail systems within their computer networks will be examined herein. The various uses of the systems will be looked at as well as any anticipated changes and improvements.

UNIVERSITY OF ALASKA

In 1976 to improve communication between its campuses, the University of Alaska started an electronic mail system which, according to school personnel became the most popular service of the University of Alaska Computer Network (UACN).[1] There are over 7500 accounts within the UACN, giving credence to this popularity. Having an account requires being associated with the University or a community college in some capacity such as a student, instructor or administrator. Although a few governmental agencies have accounts on the UACN, the system has remained primarily an instrument for the University and numerous community colleges.

To enter the system to either send or receive messages, a terminal, modem, and telephone are necessary. Computer nodes are located throughout the state that allow users to dial local numbers to access the main computer in Fairbanks. Users are given an "Userid" or account name which acts as a mail address and a password of their own choice to guarantee privacy. Online charges for the mail service are considerably cheaper than the postal service and are added automatically tothe user's account. An average message sent on the electronic mail system costs approximately ten cents when all online charges are considered. If a user must dial long distance to a computer node these charges appear on their regular phone bill. Messages may be sent to one or many accounts simultaneously and are simply stored on the receivers' account or "mailbox". Assuming that users check their accounts everyday, messages are received in a more expedient manner than postal delivery; this is especially true in areas of the state where mail delivery is dependent upon the weather.

Because of its popularity the UACN mail system has one major disadvantage. The system is so often accessed it has become somewhat of a resource hog. Over 30% of UACN's real computer time is spent sending and receiving messages.[2] Because access to the computer is limited to a certain number of terminals at one time, many other essential computer requirements are thwarted by the high volume use of the mail system. The UACN is currently looking into alleviating this problem by setting up a dedicated mail system on a separate computer so more time would be available on the large computer in Fairbanks. This idea is still in the planning stages, however, University personnel are already experimenting with software on a Dec Vax computer that will hopefully be able to "talk" to the large computer so that an integrated system can be maintained.

The UACN was an innovator in the middle 1970's by introducing the first large electronic mail system in Alaska. Since that time, the Alaska Department of Education, the Legislative Affairs Agency and Alaska Department of Administration have all introduced their own computer-based electronic mail systems. It could easily be argued that the UACN was the prototype for these systems, proving the advantages of speed, reduced paper glut, and cost effectiveness of electronic mail systems. However the UACN's electronic mail system remains a separate network from these ensuing systems and continues as created to enhance communication primarily for the University and community colleges.

DEPARTMENT OF EDUCATION

In 1979 the Alaska Department of Education (DOE) with the assistance of the National Institute of Education, introduced a electronic mail system referred in-house simply as "EMS". The purpose of the system is akin to the UACN in that its goal is to improve communication in a cost effective computer based manner. The fifty three school districts and DOE administrative and support service offices are linked by EMS. The system is similar to UACN's electronic mail which requires a mailbox account and password to send and receive messages. EMS is used extensively by the department, the school districts, the State Board of Education and the University of Alaska teacher placement office. Meetings, conferences, State Board agenda and minutes, and position openings, are examples of regularly announced subjects sent out via EMS. EMS is an excellent money saver for the department, for as most electronic mail systems EMS is considerably cheaper than the postal service and intrastate long distance telephone calls. The volume of messages sent out by each section varies but by avoiding the above charges and retaining the advantages of printed mail and the speed of a telephone call, the department and school districts rely quite heavily on the EMS for conducting business at reduced rates.

Currently EMS resides in a Dec computer in the Juneau State Office Building. Access for all users depends on dial up to the Dec

computer. However, as part of a continuing plan to centralize and therefore improve computer services for its employees, DOE plans to house the EMS system on their Wang VS100 computer located in DOE's Goldbelt Building office. This change will allow dedicated service to users hooked into the Wang computer by-passing the need to dial up for EMS service. Other users will still use the dial-up method for access into EMS, with no change in service.

LEGISLATIVE AFFAIRS AGENCY

The Legislative Affairs Agency (LAA) data network has had a electronic mail processing system for sometime called Omnicom. However the manufacturers of this software package (On-Line Software) are no longer supporting Omnicom, consequently LAA is attempting to phase out this program and has introduced EMAIL. EMAIL was developed by Applied Data Research (ADR) a company which also provides other software programs offered by the LAA data processing section. EMAIL is an efficient communication instrument that has the ability to create,send, or reply to messages as well as make attachments, personnel notes, or forward messages. Incoming and outgoing mail can be organizied and filed for easy retrieval.[3]

The Alaska Legislative Computer System (ALECSYS) houses EMAIL as one of the support services available to the Alaska Legislature. Displaywriters with IBM 3270 emulation or IBM terminals found in various locations for public or staff use can be used to access ALECSYS and from there EMAIL. EMAIL has a number of security options that make it attractive for legislative use, especially during the session. EMAIL requires a password as most electronic mail systems, but to ensure even greater security, users are given varying degrees of clearances.

These advance functions place the EMAIL system almost on a level of computer conferencing with its ability to add to text and forward to another mailbox. However, as with most electronic mail systems it is still oriented mainly towards message and reply to account holders. LAA data services personnel claim the Legislative Information Offices (LIO's) and the Legislative Teleconference Network (LTN) are the biggest users within LAA of the mail system.[4] Up-to-date information on floor activity and committee hearings is sent instantaneously via EMAIL to regional information offices, printed testimony from constituents and information requests are received quickly and inexpensively from the regional offices. The system is used administratively to send what is referred as "good morning messages" which are daily status reports, and to send equipment service or supply requests to a designated mailbox "help", especially created to handle such requests.

DEPARTMENT OF ADMINISTRATION

While the Department of Education and Legislative Affairs Agency have electronic mail systems designed to complement communication within their own agencies, the Department of Administration, (DOA) is supporting a new electronic mail software package called PROSS which is designed to to link entities within DOA as well as all agencies within State government. Commissioners and Directors have been directed by the Governor's Office to secure an account on DOA's computer network, System Network Architecture, (SNA) so that they will have access to the new electronic mail system.[5] PROSS operates as most electronic mail systems do with an account name or address and password necessary to enter the program. If using an IBM terminal linked directly to the State's computer or a terminal such as a Wang that has the capability to link into the SNA, access is achieved simply by signing on. Dial-up with a modem will be necessary for users with terminals without dedicated service to the State computer. PROSS offers many advantages such as full screen editing, much like a word processor, and a calendar feature which allows meetings or conference rooms to be scheduled up to a year in advance. Such information would be available to all persons with accounts on the system.

The new system came on-line in the middle of July with training on the system proceeding at a steady pace. It is believed that PROSS will be used extensively especially with the strong support of the Governor's Office. The SNA network can connect top officials and staff between departments lending support for audio conferencing, saving money on long distance telephone charges, travel, and postage charges and encouraging computer based communication between all departments.

SUMMARY AND RECOMMENDATIONS

The Department of Education and Legislative Affairs Agency electronic mail systems are sound communication devices for in-house use, however because of the different computer networks and software packages involved, communication between the agencies' electronic mail systems is not possible. The SNA under the Department of Administration with links to all state computer networks is an existing medium suited for an electronic mail system (PROSS) connecting all state government.

* Electronic mail systems are overall a good communication tool and therefore the concept of tying all agencies together through one electronic mail system should be supported.

It is true that because of the variety of software packages available on the market there is an opportunity to choose an electronic mail system with many options. However this plethora of products can also cause problems. Figuratively speaking, it is not uncommon in the computer software market for a product to be "hot" one day and then non-existent or non-supported by a company the next day leaving the user(s) with no where to turn when problems arise. When Omnicom was purchased from On-Line Software by LAA, the mail system was state of the art and the company stable. The decline of On-Line Software was not foreseeable at the time of purchase. Although in this case the replacement system, EMAIL appears to be a better system and supported by a reputable firm which provides other software to the agency, it is a situation that should be avoided as much as possible. Time and money is spent training staff, printing manuals, and moving files from one system to the new system. These added costs can deflate the argument that electronic mail systems are cost effective.

* Compatibility with existing hardware and software, and service arrangements are some long and short term considerations that should be made when purchasing an electronic mail system.

Endnotes

1. Meeker, Richard, University of Alaska, Juneau, interview, 6/84
2. Ibid.
3. Applied Data Research, ADR/EMAIL Reference Manual, pg.1
4. Kleppen, Dennis, Legislative Affairs Agency, interview, 8/15/84
5. Daniels, Jan, Department of Administration, interview, 7/17/84

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